

<b>Date:</b> 08/11/2015	<b>MA:</b> 2514.1	<b>Title:</b> Trace Volatiles SIM Analysis
<b>Method Source:</b> SOM02.2	<b>Method:</b> Trace Volatiles by SIM	
<b>Matrix:</b> Water		
<b>Summary of Modification</b>		
<p>The purpose of this modified analysis is to require the Laboratory to analyze samples by the full scan method for the complete target analyte list at the CRQLs in Exhibit C, Section 1.0. The Laboratory shall proceed to Selected Ion Monitoring (SIM) analysis for any sample in which any of the target analytes in Section I is either undetected or detected at concentrations below the sample adjusted CRQL (laboratory qualifier is reported with a U or J flag) in the full scan analyses. The Laboratory shall achieve the CRQLs for the Trace Volatiles SIM target analytes specified in Section I. Unless specified by this modification, all analyses, Quality Control (QC), and reporting requirements specified in the SOW listed in your current EPA agreement remain unchanged and in full force and effect.</p>		
<b>I. Analyte Modifications</b>		<b>Not applicable</b> <input type="checkbox"/>

Analyte	CAS Number	Water CRQL (ug/L)
1,2-Dibromo-3-chloropropane	96-12-8	0.050
1,2-Dibromoethane	106-93-4	0.050

<b>II. Calibration and QC Requirements</b>	<b>Not applicable</b> <input type="checkbox"/>
<p>The Laboratory shall:</p> <ul style="list-style-type: none"> <li>Analyze the lowest ICAL standard at concentrations equal to or less than the CRQLs for the target analytes in Section I.</li> <li>Perform a five-point initial calibration to establish the linear calibration ranges on GC/MS for the target analytes in Section I. The recommended ICAL standard concentrations are at 0.050, 0.10, 0.50, 1.0, 2.0 and 4.0 ug/L for the analytes in Section I.</li> <li>Add the same non-ketone DMC specified for Trace Volatiles analysis in the SOW at concentrations 0.050, 0.50, 1.0, 2.0 and 4.0 ug/L to the ICAL standards.</li> <li>Add the same Internal Standard (IS) solution specified for Trace Volatiles analysis at the concentration 1.0 ug/L to all ICAL standards.</li> <li>Perform the Continuing Calibration Verification (CCV) at mid-point ICAL standard (CS3) concentration at the same frequency and sequence as specified in SOW.</li> <li>Note that ICAL and CCV RRF, ICAL %RSD and CCV %D technical acceptance criteria for the target analytes listed in Section I and the associated DMCs shall remain the same as specified for Trace Volatiles analysis in the SOW.</li> <li>Note that all target analytes and DMCs must meet the ICAL and CCV technical acceptance criteria.</li> <li>Analyze method blanks at the same frequency and sequence as specified for Trace Volatiles analysis in the SOW. The concentration of any target analyte in Section I in the method blank shall not exceed the CRQL listed in Section I.</li> <li>Perform the Matrix Spike (MS) and Matrix Spike Duplicate (MSD) sample analysis, if it is</li> </ul>	

<p>requested and the sample is designated on the Chain of Custody (COC). The spiking solution shall contain the target analytes in Section I and the spiking concentration shall be at the mid-point ICAL standard concentration of 0.50 ug/L. The %R and RPD QC limits for the analytes in Section I shall be 50-150% and 0-50% respectively and these limits are advisory.</p> <ul style="list-style-type: none"> <li>Analyze a Laboratory Control Sample (LCS) at frequency of one per SDG. The LCS spiking solution shall contain all target analytes in Section I. The spiking analyte concentrations shall be at 1xCRQLs as listed in Section I. The Percent Recovery (%R) for the spiking analyte shall be in the inclusive range of 50-150%. If the %R fails to meet the technical acceptance criteria, all samples shall be reanalyzed at no additional cost to EPA.</li> <li>Add the non-ketone DMC at concentration 1.0 ug/L to all samples, blanks, LCS and MS/MSD if requested. The DMC %R technical acceptance criteria for the associated DMCs shall remain the same as specified for Trace Volatiles analysis in the SOW.</li> <li>Note that all DMCs shall meet the %R criteria. If the %R fails to meet the technical acceptance criteria, all samples shall be reanalyzed at no additional cost to EPA.</li> <li>Add the same IS at the same concentration in the calibration standards to all samples, blanks, LCS and MS/MSD if requested.</li> <li>Note that the IS associated to the target analyte in Section I is the same as specified for Trace Volatiles analysis. IS technical acceptance criteria specified in the SOW shall remain in effect.</li> <li>Note that all other technical acceptance criteria for ICALs, CCVs, blanks, samples and MS/MSD, if requested, shall remain the same as specified in the SOW.</li> </ul>	
<b>III. Preparation and Method Modifications</b>	<b>Not applicable</b> <input type="checkbox"/>
<p>The Laboratory shall:</p> <ul style="list-style-type: none"> <li>Perform a MDL study for the target analytes in Section I.</li> <li>Proceed to the Selective Ion Monitoring (SIM) procedure for water samples analyzed with the full scan Trace Volatiles analysis when any of the target analyte in Section I is either not detected or detected at a concentration below the sample adjusted CRQL (reported with a "U" or "J" LabQualifier.)</li> </ul>	
<b>IV. Special Reporting Requirements</b>	<b>Not applicable</b> <input type="checkbox"/>
<p>The Laboratory shall:</p> <ul style="list-style-type: none"> <li><b>Report the CRQLs listed in Section I, adjusted according to the equation listed in Exhibit D of the SOW, even if the level of the corresponding target analytes in the low-point calibration standard is below the CRQLs listed in Section I.</b></li> <li>Submit the MDL study results for target analytes in Section I as specified in the SOW. If the Laboratory has not previously submitted MDL results during the current contract year for the target analytes in Section I above, compliant MDL study results shall be submitted concurrently with the deliverables for this MA to the recipients specified in the Exhibit B, Table 1, Row G, of the SOW.</li> <li>Modify all applicable hardcopy forms to include the target analytes in Section I and the associated DMCs and ISs. This includes Forms 1, 2, 3, 6, 7 and 8.</li> <li>Include the Form 3A-OR for reporting the MS/MSD, if the analysis is performed as requested.</li> </ul>	

The form shall include the spiking analytes and other required information.

- Identify the LCS with EPA Sample Number of VLCS## where ## is alphanumerical.
- Include a modified Form 3B-OR for reporting the LCS. The form shall include the spiking analytes and other required information.
- Report QCType = "Laboratory\_Control\_Sample" for the LCS in the EDD.
- Report "TVOA\_SIM" for the field "LabDataPackageName" under "Header" node in the EDD and "TVOA SIM" in the appropriate header fields on the hardcopy forms.
- Note that TICs are not required to be reported.
- Include the same information in the EDD as in the hardcopy.